

the angle of the jaw and in front of the sterno-cleido mastoideus. The current, mild at first, was gradually increased in intensity until it could be distinctly appreciated by the patient as passing through the soft palate from one side of the throat to the other. It was continued for fifteen minutes at each sitting. It was noticed that the pupils, widely dilated at first, became strongly contracted as soon as the application of the current gave relief. Dr. Max Schaeffer, who has recently advocated this treatment, agrees in the main with Biermer as to the pathology of idiopathic asthma, meaning by *idiopathic* asthma those attacks in the intervals between which no evidence of morbid changes in the lungs can be found. He regards these attacks as a tonic spasm of the middle and finer bronchial tubes; but he looks upon the spasm as secondary, and agrees with Weber in believing the primary change to be a swelling or tumefaction of the bronchial mucous membrane, dependent on a fluxionary hyperæmia, itself due to a vasomotor nervous influence, the principal rôle being played by the pulmonary fibres of the vagus. According to this view asthma is an irritative and reflex pulmonary neurosis.

The morbid state, upon which the asthma depends, may—affect (1) the nerve itself, or (2) the coverings of the nerve, or (3) the tissues adjacent to the nerve.

Max Schaeffer lays great emphasis on the third of these conditions—viz., that morbid states of the structures adjacent to the nerve may influence and disturb the nervous currents. Tumours, such as nasal polypi, hypertrophied tonsils, swollen cervical or bronchial glands (temporary hyperæmia of these glands), can, according to their position, cause irritative pressure on nerve filaments connected with the respiratory centres. He found that many of his asthmatic patients were the subjects of nasal catarrh, or pharyngeal catarrh, or laryngo-tracheal catarrh. He noticed that swellings of the mucous membranes of these parts were attended with asthmatic paroxysms, and patients would constantly refer the seat of their discomfort lower or higher in the throat, according to the seat of the swelling, and he concludes that all the symptoms of asthma are symptoms of irritation brought on by pressure on nerves which are in connection with the pulmonary portion of the vagus, and especially in the upper part of the respiratory tract—the pharynx, larynx, and trachea.

He examines carefully the nose and throat, and applies the electrodes according to the seat of the disease. Usually the two electrodes are placed on each side of the neck about two centimetres below the angle of the jaw, and sometimes a little lower down in front of the sterno-cleido mastoideus. The current must be of good strength, so that the patient can feel the stream go across the larynx and soft palate. In bad cases it should be applied twice a day from fifteen to thirty minutes each sitting. He states that in the most severe cases it has acted “like witchcraft.” He has never found the constant current do any good, but he has never failed with the induced current.

Certainly the result of the application of the induced current in the case that came under Dr. Yeo's observation was very remarkable.

On Angina Pectoris.

Prof. POTAIN, in a clinical lecture at the Necker (*Gaz. des Hôp.*, August 19), observed that he believed that three forms of this affection can be distinctly recognized, all characterized by agonizing substernal pain, propagated in the paroxysmal form to the upper extremities. It differs from ordinary dyspnœa, as there is no oppression (properly so called), but a kind of constriction of the parietes of the thorax.

1. The first form, symptomatic of a lesion of the coronary arteries, may be re-

garded as terminating fatally in death. The lesions may vary somewhat, but Prof. Potain agrees with Jenner that they usually consist in obstruction of the coronaries. In thirty-six cases lesion of the coronary arteries was observed. The mere existence of atheroma will not explain the occurrence of angina, unless actual narrowing of the vessels be also present. The symptoms of this form present special characters. The paroxysm supervenes on difficult digestion or on movements made during digestion, but is never declared while the patient is in a state of repose. It is also accompanied by radiations of pain along one or both of the upper extremities, and especially the left.

2. The second form differs completely from the first, inasmuch as it is not connected with any lesion of the coronary arteries, but assumes the characteristics of a true neurosis. It is met with either in the subjects of rheumatism or in nervous persons; is of much less importance than the other form; and occurs oftener in private than in hospital practice. It comes on under the influence of cold or damp. Thus, a young woman, who, after having been heated in dancing, had exposed her uncovered neck to an open window, was seized during the night with a fearful paroxysm of sternal constriction, with irradiation of the pain down to her left hand, which, after lasting for some hours, disappeared, to recur nightly for more than a week. The paroxysms were then separated by longer intervals, until they entirely disappeared, leaving no trace behind. No cardiac or other appreciable lesion had preceded the attack. In this case the paroxysms did not arise under the influence of movements, but came on spontaneously during the night, "at what I may term the time of false croup." Moreover, their duration was longer, as they persisted one or two hours, and even sometimes longer; the patient in the intervals enjoying perfect health, being able to ascend or run with the greatest facility. On the other hand, in symptomatic angina, when the fit is off, the patient is still unable to ascend the slightest acclivity, while the paroxysm never comes on when he is in a state of repose, and scarcely lasts for some minutes. In this second, rheumatismal or nervous form, Prof. Potain has never met with a fatal case, so that the prognosis is entirely different. So is its etiology: for while symptomatic angina is especially met with in men of a certain age, and in gouty subjects, this second form particularly appears in young and nervous women.

3. In the third form, while the accidents are the same, the circumstances are quite different, the origin and true cause of the disease being generally found in an affection of the heart of old date. This is a dilatation of the organ, whether it be the result of chronic disease of the lungs (sclerosis, emphysema, etc.), primary gastric disturbance, or a pulmonary affection complicated with gastric disturbance. The patient is seized after a meal, and especially if this meal has been followed by rapid walking, with a deep-seated sense of anguish and oppression and suffocation, without true dyspnoea. The pain, which is sometimes substernal, is much oftener seated in the cardiac region itself (pain in the heart, as it is called), and is accompanied by a feeling of plenitude and not of constriction, and by a numbness which often irradiates along the left upper extremity. Although no statistics on the subject exist, this form would seem to be of more frequent occurrence than the second, and perhaps even than the first. While the prognosis, however, of the first is fatal, and that of the second is generally favourable, the symptoms of this third form are a mere epiphenomenon, which of itself does not constitute the true danger.

In the treatment of the first form of the affection there is, unfortunately, little to be done, especially during the paroxysm, the short duration of which hardly allows of intervention. If, however, it is at all prolonged, morphia injections may be useful. In the intervals, Prof. Potain has derived benefit from the iodide of

potassium, which exerts a favourable influence on chronic enteritis; and arsenic or the bromides may be recommended on account of their action on the nervous system. The second form requires quite a different treatment. During the paroxysms, external derivatives (blisters and sinapisms) and antispasmodics (camphor, assafoetida, and ether) should be resorted to; and in the intervals, vapour or sulphurous baths, tonics, chalybeates, country air, etc. In the third form, the treatment must vary according to whether the disease result from gastric disturbance or some pulmonary lesion. But, in any case, one of the most immediate indications is absolute repose—and that more absolute, perhaps, than in this first form, if a cure of the affection is to be sought for.—*Med. Times and Gazette*, Nov. 20, 1880.

Occurrence of Albuminuria in Healthy Men.

Professor J. W. RUBEK, of Helsingfors (*Deutsches Archiv für Klinische Medizin*, Band 76, Heft 3 and 4), reviews at length some of the principal contributions which have appeared during the last few years to the solution of the problem of the clinical significance of albuminuria. The observations of Leube, Uitzmann, Moxon, Dukes, and Saundby have established the frequent occurrence of albuminuria in persons who do not present any other signs of kidney disease. A few years ago, such cases of latent albuminuria were regarded as instances of granular kidney, but their frequency makes this improbable.

Bull has suggested that the albuminuria indicated a Bright's diathesis or tendency to Bright's disease, and Johnson has stated that such cases, if not cured, pass on to organic kidney-disease; but this can hardly be considered as finally settled. The transudation of albumen, according to Runeberg, depends upon an abnormal permeability of the walls of the glomeruli, and this permeability in its turn depends upon the blood-pressure. As he has shown, the filtration of albumen through animal membrane is increased by low pressure and diminished by high pressure, so that the old dogma, that the amount of albumen is directly proportional to the pressure on the glomeruli, must be abandoned or reversed. It is well established that active muscular movements increase albuminuria, but this is probably due to the lowering of blood-pressure in the glomeruli, a circumstance which is indicated by the diminished secretion of urine, and is supported by the physiological experiments of Ranke, which show that, owing to the large amount of blood flowing into the active muscles, the internal organs have their blood-pressure lowered. Moreover, Bartels pointed out that in renal cirrhosis the albuminuria is greater in the day than at night, which he attributed to the increased pressure due to muscular exertion. But the amount of urine which admittedly stands in direct relation to the blood-pressure, is greater during the night than during the day.

Runeberg gives three tables, showing that the quantity of urine was almost invariably greater during the night than during the day, while the contrary was of the albumen, both proportionally and absolutely. But Leube, Moxon, and Fürbringer have stated that the urine passed in the forenoon is more albuminous than that passed in the afternoon or at night; and Runeberg gives a table showing this to be the case, but that the urine secreted during the forenoon is less absolutely, and less per hour, than that passed at the other periods. These facts, he contends, support his doctrine that albuminuria depends upon lowering of the blood-pressure in the renal glomeruli.—*London Med. Record*, Nov. 15, 1880.

Periodical Hæmoglobinuria.

Dr. OTTOMAR ROSENBACH (*Berliner Klinische Wochenschrift*, 1880, Nos 10 and 11) relates the case of a boy, aged 7, who, after a fall from a wagon, be